

Work Order ID 73863

Friday, September 16, 2011 1:40:07 PM

Page 1

Item ID: D206-642-151

Accept

Setup Start

Revision ID:

Stop

Item Name: Replacement Skidtube

Start Date: 9/16/2011 Start Qty: 1.00

Cust Item ID:

Required Date: 10/21/2011 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: MF Date: 11-09-19 Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D3804

A

IIN-D206-642

O

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPP D206-642-151

CHG001

N/A *[Signature]*

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR: Yes No** **DQA:** _____ **Date:** _____
Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Deburr Fwd edge of tube

2- Remove ridge on inside of Fwd edge of tube as per Dwg D3804

3-Weld Fwd Cap as per Dwg D3804. Use aluminum rod. Grind D2647 to fit as required.

Pick:

Qty ☐ Part Number ☐ Description ☐ Batch
A/R ☐ Aluminum Rod ☒ M114514

4-Grind weld flush to cap on top surface only.

5-Cut Aft end as per dwg D3804 from front of tube and Deburr

6-Remove inner indexing ridge on Aft end of skidtube as per Dwg D3804

7-Open holes for Aft end cap as per Dwg D3804 with #30 Drill Bit using DT8025.

8-Drill pilot holes using Dt8166 & DT8169D & DT9771.

9-Locate DT8732 from inner Aft saddle hole & 3rd crossbolt hole. Insert D3286-1 doubler using DT8732 & D206-642-241-T1, then locating doubler off of 3/16" holes, cleco DT8732 & doubler leaving DT8732 for added support.

10- Drill D3286-1 doubler rivet holes in tube using # 30 drill, spot drilling doubler at the same time.

11-9-26

SAO 11-10-11

11/10/11

Dart Aerospace Ltd

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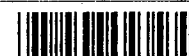
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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

11-Working from the center out, drill # 30 holes into D3286-1 doubler. Cleco each hole as it is being drilled. Verify angle of holes to accommodate rivet heads.

12-Remove 3/16" cleco's only and open GHW holes to Ø0.500" as per Dwg D3804

13-Remove D3286-1 doublers, identify orientation, deburr, then attach them to the workorder

14-Remove indexing edge using DT8741 as per Dwg D3804

15-C'sink GHW rivet holes as per Dwg D3804

16- Open Aft cap hole #6.
****no wearplate holes for this skidtube****

17-Deburr tube and blow out chips from inside the tube

OC / DP
11/16/11

11-10-12

8 10/16/11

120



QC

Quality Control

QC6- Inspect dimensions to drawing

0.00

Memo

0.00

Dart Aerospace Ltd

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Chemical Conversion Coat per QSI005 4.1	0.00							
	HandFinish	0.00							
	Hand Finishing								
150	QC3- Inspect Part Finish	0.00							
	QC	0.00							
	Quality Control								
160	Skidtubes	0.00							
	Skidtubes	0.00							
	Skidtubes								
	1-Open holes to finished size as per Dwg D3804, (without cutting fluid)								
	2-C'sink crossbolt spacer holes as per Dwg D3804(without cutting fluid)								
	3-Deburr and blow out all chips from inside the tube								

DL
11/10/14

DP

11-10-14

1 0 BE 11/10/14

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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Reference:

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start
Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

170 QC6- Inspect dimensions to drawing 0.00



QC Memo 0.00

Quality Control

180 Skidtubes 0.00



Skidtubes Memo 0.00

Skidtubes 1-Locate, install and rivet doublers as per Dwg D3804. Micro-shave rivets as required

2-Bond D2654-3 web in place as per QSI 015. Ensure holes line up. Allow 12 Hrs. cure time before cutting

Start Date: 11-10-14 Time: 4:05Finish Date: 11/10/14 Time: 7:00

Pick:

Qty ☐ Part Number ☐ Description ☐ BatchA/R ☐ Sikaflex-291 ☐ M118292Sikaflex expire date: 12-05-0511-10-14BE 11/10/14SAD 11-10-14

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

DP

11-10-17

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Customer:

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

200

0.00



Skidtubes

Skidtubes

Memo

0.00

1-remove alodine from around hole and prepare for welding

2-Prep per QSI 005 and Insert D2649 crossbolt spacers. Weld as per QSI 004 and Dwg D3804. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod.

Pick:

Qty ☐ Part Number ☐ Description ☐ BatchA/R ☐ Aluminum Rod ☐ M117884

3-Grind welds flush as per Dwg D3804.

4-Using DT8733, insert (2) D3286-3 spacers as per QSI 004 and Dwg D3804. Remember to back drill each hole to Ø0.402" before welding other side. Use SS rod as required.

A/R ☐ SS Rod ☐ NONE

5-Counterbore 5/16" x 0.750" deep except 7th hole from Aft end as per Dwg D3804. Deburr

> BE 11/10/17

BB 11/10/17

BE 11/10/17

DP

11-10-17

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

210

0.00



HandFinishing

HandFinish

Memo

0.00

Hand Finishing

Install D2680-041 Nut Plate as per Dwg D3804

DP 11-10-17

QC9

0.00

220



QC10- Inspect visual per QS1004- ground welds

QC

Memo

0.00

Quality Control

Sulcoles

230

0.00



QC5- Inspect part completeness to step on W/O

QC

Memo

0.00

Quality Control

Sulcoles

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BH



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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

240

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

Hand Finishing

IX Ø M- 11/10/18

250

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME: 1:10
OVEN TEMPERATURE: 320°F
FINISH TIME: 1:40

IX Ø M- 11/10/18

260

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

1 RH Ø M 11/10/18

Work Order ID 73863

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RH



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Customer:

Reference:

Run Start



Approvals: Process Plan: Date: Tooling: Date:

Stop



QC: Date: SPC (Y/N): Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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270

0.00



HandFinishing

HandFinish

Memo

0.00

Hand Finishing

- ✓ 1-Install D2651-3 O-Rings on D2651-1 plugs with Petroleum Jelly and install plugs as per Dwg D3804. Clean excess adhesive.

1 RH 0 11/10/19

280

0.00



HandFinishing

HandFinish

Memo

0.00

Hand Finishing

- ✓ 1-Install D2646 Aft Cap and seal with Sikaflex. Clean excess adhesive
A/R ☐ Sikaflex-291 ☐ 11/18/39 ☐
Sikaflex expire date: ☐ 12/6/39
- ✓ 2- Install wearplate as per dwg
- ✓ 2-Wing Walk as per Dwg D3804 and QSI 005 4.4 ☐
Batch: 1118986

1 RH 0 11/10/19

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Reference:

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

290

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

S 9/16/20

300

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

S 9/16/20

K
BY

310

Packaging

0.00



Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D206-642-151

Location:

PPP Rev:

PPR 74422

9/16/2011

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

320

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

n/w 120

mf
11-1020

Picklist Print

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Page 1

Work Order ID: 73863

Parent Item: D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 9/16/2011

Required Date: 10/21/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 10.12.08 PER IIN REV.N DD VERF:EC
REV:B 11.09.16 PER IIN REV.O DD VERF:EC

IPP

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2620

Manufactured No

110

Each

12.0000

1

1



Skidtube, 206 Skidtube

Location

Loc Qty

Loc Code

LG 73786
68136
71616
71617

12
1
5
6

mo/DP 11-9-26

D2647

Manufactured No

110

Each

44.0000

1

1



Cap

Location

Loc Qty

Loc Code

LG002
55352
71171

44
14
30

①

11.09.30

CR3212-4-04

Purchased No

180

Each

1,655.000

52

52



Cherry Rivet

Location

Loc Qty

Loc Code

ST311
116471
117816
118686
118840

1655
78
477
100
1000

BE 11/10/14
119017 *59

Dart Aerospace Ltd

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Parent Item Name: Replacement Skidtube

Start Date: 9/16/2011

Required Date: 10/21/2011

Start Qty: 1.00

Required Qty: 1.00

D2654-1 Manufactured No

180° Each

6.0000

1

1



Web

Location

Loc Qty

Loc Code

LG

6

B73791

64562

6

180

Each

32.0000

2

2

D3286-1

Manufactured No



Doubler

Location

Loc Qty

Loc Code

LG002

32

52844

11

64563

21

200

Each

289.0000

19

19

D2649

Manufactured No



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG

6

68224

2

71355

2

72704

2

LG001

283

65317

1

68507

11

73390

27

200

Each

27.0000

2

2

D3286-3

Manufactured No



Spacer

Location

Loc Qty

Loc Code

LG002

27

64564

27

SAD 11-10-14

①

74/11

DL 11/10/17

BE 11/10/17
B 72841 19

BE 11/10/17
B 74117 2

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Shop Packet Print

Page 2

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Start Date: 9/16/2011

Required Date: 10/21/2011

Start Qty: 1.00

Required Qty: 1.00

D2680-041 Manufactured No

210 Each

19.0000

1 1



Nut Plate

Location

Loc Qty

Loc Code

ST020

73334

19

55366

17

70088

2

① DP 11-10-17

CR3212-4-03 Purchased No

210 Each

1,138.000

2 2



Cherry Rivet

Location

Loc Qty

Loc Code

FP-B

2

110139

2

ST311

1136

114859

1136

② DP 11-10-17

AN960JD416 NAS1149D0463J Purchased No

210 Each

0.0000

1 1



Washer

M118384

(x1) M118384

CCR264SS3-3 Purchased No

210 Each

435.0000

2 2



Cherry Rivet

Location

Loc Qty

Loc Code

FP-B

2

113973

2

ST311

433

117086

23

117849

410

② DP 11-10-17

Dart Aerospace Ltd

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Required Date: 10/21/2011

Start Qty: 1.00

Required Qty: 1.00

MS27039-4-06

Purchased

No

210

Each

29.0000

1

1



Screw



M 11/10/11

Location

Loc Qty

Loc Code

FP-A

8

M119124

✓

115460

8

ST292

21

115460

21

D2651-1

Manufactured

No

270

Each

289.0000

6

6



Plug



M 11/10/11

Location

Loc Qty

Loc Code

fpa

109

69018.

109

FP-A

180

57869

1

66445

10

67760

36

70691

100

70839

2

71037

31

✓

D2651-3

Manufactured

No

270

Each

799.0000

6

6



O-Ring



M 11/10/11

Location

Loc Qty

Loc Code

FP-A

799

61962

12

66956

282

73489

505

✓

Dart Aerospace Ltd

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 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, September 16, 2011 1:40:04 PM

Work Order ID: 73863

Parent Item: D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 9/16/2011

Required Date: 10/21/2011

Start Qty: 1.00

Required Qty: 1.00

D3873-1

Manufactured No

280

Each

160.0000

14

14



Bushing



M 11/10/11

Location

Loc Qty

Loc Code

ST084

4

B73831

X14

68247

4

ST088

156

64760

1

70690

54

71837

101

D2646

Manufactured No

280

Each

89.0000

1

1



Aft Cap



M 11/10/11

Location

Loc Qty

Loc Code

FP004

45

68280

45

X1

FP006

5

62678

5

FP-4

35

70945

1

71070

34

fp5

4

71038

4

D3805-041

Manufactured No

280

Each

0.0000

1

1



Wearplate Assembly Fwd, Low Gear



B74940 Cx1 261 11/10/11

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

Picklist Print

Friday, September 16, 2011 1:40:04 PM

Page 6

Work Order ID: 73863

Parent Item: D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 9/16/2011

Required Date: 10/21/2011

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-08

Purchased

No

280

Each

1,296.000

2

2



Screw



u 11/10/19

Location

Loc Qty

Loc Code

ST291

1296

115108

96

117423

300

118378

400

118910

500

v2

MS21042L3

Purchased

No

280

Each

1,603.000

7

7



Nut



u 11/10/19

Location

Loc Qty

Loc Code

ST300

1603

117441

24

117601

374

117885

205

118451

1000

v7

D3805-045

Manufactured

No

280

Each

6.0000

1

1



Wearplate Assembly Aft, Low Gear



B73817

(x1) u 11/10/19

Location

Loc Qty

Loc Code

FP

6

70878

6

AN960JD10L

NAS1149D03321

Purchased

No

280

Each

0.0000

2

2



Washer



M 117087

(x2) u 11/10/19

Friday, September 16, 2011 1:40:04 PM

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Page 6

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

Friday, September 16, 2011 1:40:05 PM

Page 7

Work Order ID: 73863

Parent Item: D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 9/16/2011

Required Date: 10/21/2011

Start Qty: 1.00

Required Qty: 1.00

AN3-37A Purchased No 280 Each 261.0000 7 7
Bolt
u/10/19

Location Loc Qty Loc Code

ST353 211

111668 111

118628 100

ST354 50

117619 50

NAS1149D0363J Purchased No 280 Each 2,623.000 7 7
Washer
u/10/19

Location Loc Qty Loc Code

ST298 2623

117601 308

118077 1315

118612 1000

Friday, September 16, 2011 1:40:05 PM

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Page 7

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

ITEM	Qty -041	Qty -043	Part Number	Description
1	X		D3804-041	SKIDTUBE ASSEMBLY, 206 A/B LOW
2		X	D3804-043	SKIDTUBE ASSEMBLY, 206 A/B HIGH
5	1	1	D2600-1-160	EXTRUSION
6	1	1	D2646	AFT CAP
7	1	1	D2647	CAP
8	19	20	D2649	CROSS BOLT SPACER
9	6	8	D2651-1	PLUG
10	6	8	D2651-3	O-RING
11		1	D2654-3	WEB
12	1		D2654-1	WEB
13	1	1	D2680-041	NUT PLATE
14	2	2	D3288-1	DOUBLER
15	2	2	D3288-3	STUD
21	2	2	AN960JD10L	WASHER
22	1	1	AN960JD416	WASHER
23	2	2	CCR264SS3-3	RIVET
24	2	2	CR3212-4-03	RIVET
25	52	52	CR3212-4-04	RIVET
26	2	2	MS27039-1-08	SCREW
27	1	1	MS27039-4-06	SCREW

NOTES

- 1) MATERIAL: N/A
- 2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 7) IDENTIFICATION: NONE
- 8) WEIGHT: 12.5 lb
- 9) WELD PER DART QSI 004
- 10) BENDING: DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 11) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
- 12) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)

RELEASED
49 09.07.07
PC ECN 09-538

A	NEW ISSUE	MB	08.07.07
REV.	DESCRIPTION	BY	DATE
DESIGN	99	DART AEROSPACE USA, INC	
DRAWN	99	PORT HADLOCK, WA	
CHECKED	99	DRAWING NO.	REV. A
MFG. APPR.	99	D3804	SHEET 1 OF 5
APPROVED	99	TITLE	SCALE
DE APPR.	99	SKIDTUBE ASSEMBLY, 206A/B	NTS
DATE	08.07.07	COPYRIGHT © 2008 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

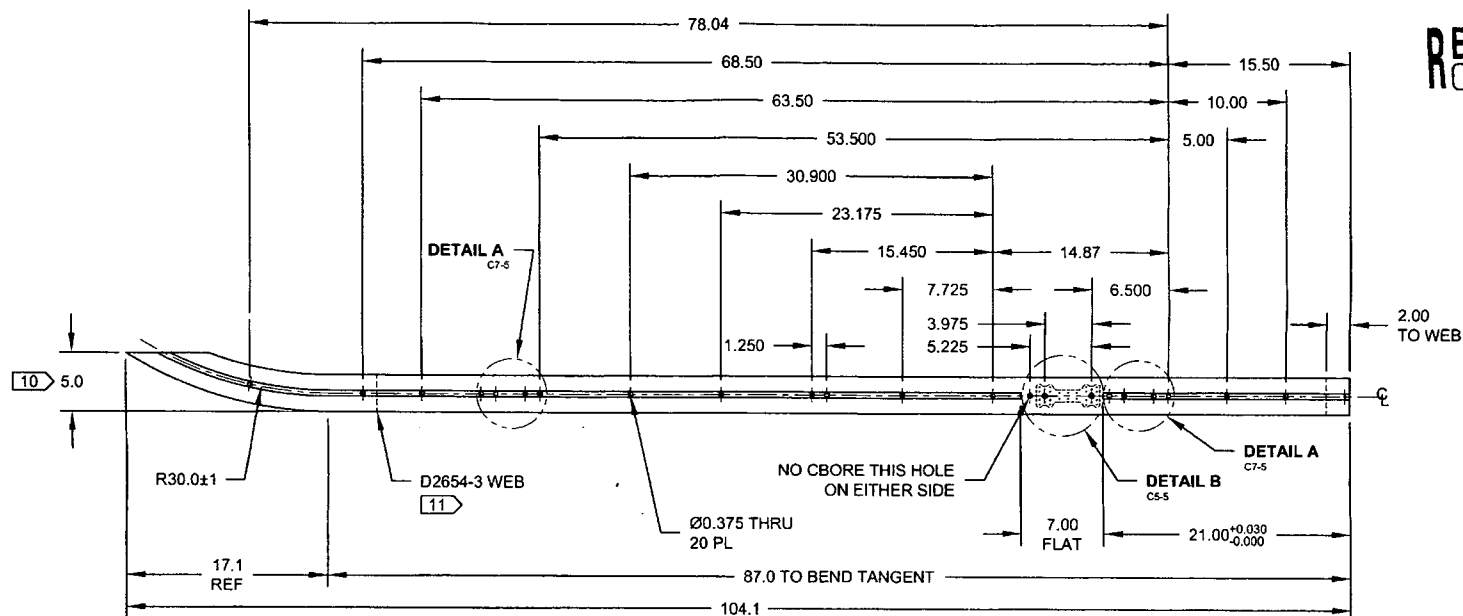
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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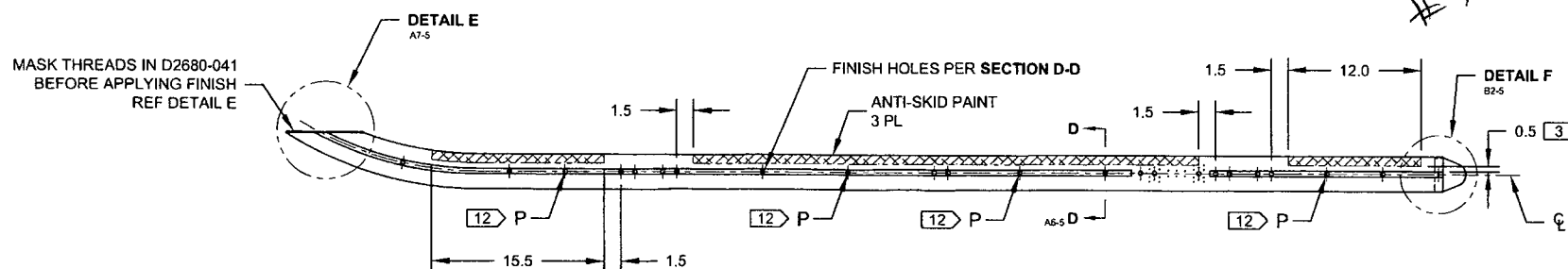
NOTE: Date & initial all entries

RELEASED
09.03.03



D3804-043 BENDING/DRILLING DETAIL

#73863



D3804-043 ASSEMBLY/FINISHING DETAIL

DESIGN	99	DART AEROSPACE USA, INC	
DRAWN	99	PORT HADLOCK, WA	
CHECKED	99	DRAWING NO.	REV. A
MFG. APPR.	99	D3804	SHEET 3 OF 5
APPROVED	99	TITLE	SCALE
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

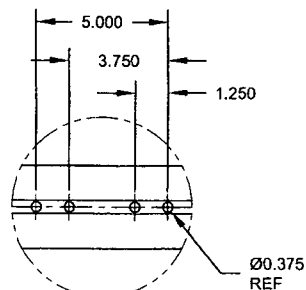
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

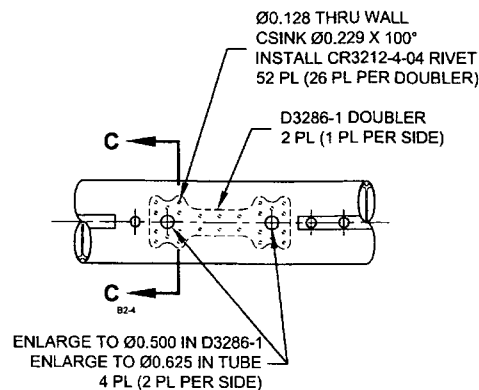
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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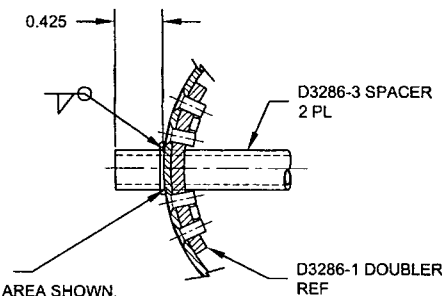
RELEASED
UP 09.03.03



DETAIL A
SCALE NONE
D6-2
C2-2
D6-3
C2-3

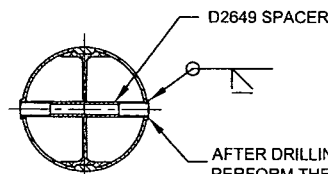


DETAIL B
SCALE NONE
C3-2
C3-3



- TO INSTALL D3286-1/-3:
1. GRIND OFF FLANGE IN AREA SHOWN, FLUSH WITH OUTSIDE SURFACE OF ROUND TUBE
 2. LOCATE & DRILL D3286-1 DOUBLER USING DT3286-1T1
 3. ENLARGE HOLES IN D3286-1 TO Ø0.500
 4. ENLARGE HOLES IN TUBE TO Ø0.625 AND CHAMFER HOLE 0.03 X 45°
 5. RIVET D3286-1 TO TUBE
 6. INSERT D3286-3 SPACER
 7. WELD IN PLACE AND GRIND FLUSH

SECTION C-C
PARTIAL SECTION
SCALE NONE
C6-4



- AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.375 HOLES ONLY:
1. CHAMFER HOLE 0.03 X 45°
 2. INSERT D2649 SPACER
 3. WELD INTO PLACE AND GRIND FLUSH
 4. CBORE TO Ø0.313 X 0.75 DP (EXCEPT WHERE INDICATED)

SECTION D-D
FOR Ø0.375 HOLES ONLY
SCALE NONE
A4-2
A4-3

DESIGN	99	DART AEROSPACE USA, INC	
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CHECKED	JP	DRAWING NO.	REV. A
MFG. APPR.	JP	D3804	SHEET 4 OF 5
APPROVED	JP	TITLE	SCALE
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#73863

Dart Aerospace Ltd

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Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____
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RELEASED
09-03-03

CCR264SS3-3
RIVET
2 PL

CR3212-4-03 RIVET
2 PL

VIEW G-G
SCALE NONE AT-5

D2647 CAP, TO INSTALL:
1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D2647 (TRIM AS REQD)
4. WELD D2647 IN PLACE
5. GRIND FLUSH
6. RIVET D2680-041 NUT PLATE IN PLACE

MS27039-4-06 SCREW
AN960JD416 WASHER

D2680-041
NUTPLATE

1.0 REMOVE RIDGE ON
INSIDE OF SKIDTUBE
LEAVE 0.070 MIN.

DETAIL E
SCALE NONE B7-2
B7-3

0.400

END OF WEB

BORE OUT END
OF SKIDTUBE
TO 0.75 DEPTH
AND 0.070 WALL

SEAL WITH
SIKAFLEX-241/291

D2646 AFT CAP

Ø0.204
REF

MS27039-1-08 SCREW
AN960JD10L WASHER
2 PL

DETAIL F
SCALE NONE B2-2
B2-3

#73863

DESIGN	97	DART AEROSPACE USA, INC	
DRAWN	97	PORT HADLOCK, WA	
CHECKED	97	DRAWING NO.	REV. A
MFG. APPR.	97	D3804	SHEET 5 OF 5
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NO. 272

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 73871
Part number: S 206-1042-151
Description: 206 skid tube
Welding Process: Tig ☒ Mig ☐
Base material: Aluminum
Current: AC ☒ DC ☐

TEST REQUIREMENTS AND RESULTS

Visual: pass ☒ fail ☐
Penetration: pass ☒ fail ☐

UNACCEPTABLE

Cracks: pass ☒ fail ☐
Undercut: pass ☒ fail ☐
Pin holes: pass ☒ fail ☐
Overlap (cold lap): pass ☒ fail ☐
Porosity (surface): pass ☒ fail ☐
Coloration: pass ☒ fail ☐

Qualifier Sal Dunn Date of Test Coupon 11-10-12
Welder Barclay Elliott Date of Test Coupon 11-10-12

The above named individual is qualified in accordance with AWS D17.1.2001 to weld